

Lockheed Martin Corporation  
Corporate Environment, Safety & Health  
West Coast Projects Office  
2550 North Hollywood Way, 3rd Floor, Burbank, CA 91505-1055  
Facsimile 818-847-0256 or 818-847-0170

SFUND RECORDS CTR  
*SDMS #* 66785

SFUND RECORDS CTR  
2462-00211



Via Airborne Express  
CAY1199/398 WBS #48

November 9, 1999

Mr. Gerard J. Thibeault  
Executive Officer  
California Regional Water Quality Control Board  
Santa Ana Region  
3737 Main Street, Suite 500  
Riverside, California 92501-3339

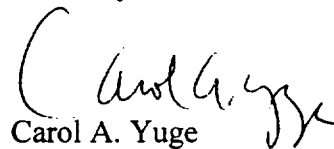
Dear Mr. Thibeault:

**Subject: September 1999 Data Report  
Water Supply Contingency Plan  
Production Well Sampling Program  
Crafton-Redlands Plume Project**

In compliance with the approved Water Supply Contingency Plan, enclosed please find one copy of the **September 1999, Production Well Sampling Program** report prepared by HSI-Geotrans for the Lockheed Martin Corporation. This report presents analytical results from samples collected at Bunker Hill Basin Production Wells in September of 1999. Level III Modified Laboratory Quality Assurance/Quality Control documentation is included in Attachment B of the report.

Should you have any questions, comments, or request, please contact Tom Blackman at (818) 847-0791 or John Hemmans at (818) 847-0191.

Sincerely,

  
Carol A. Yuge

Enclosures

CAY:JH:mg

cc: See Attached Distribution List

Gerard Thibeault  
November 9, 1999  
CAY1199/398  
Page 2

**Distribution:**

cc: (Abbreviated Report Without Attachments "A & B" Which are Available Upon Request)  
Kim Alexander, Psomas  
Kalyanpur Baliga, Department of Health Services (San Bernardino)  
Tom Bartol, USAF, Norton Air Force Base  
Henry Dennis, Mountainview Power Company  
Dodie Farmer, Victoria Farms Mutual Water Company  
Douglas Headrick, San Bernardino Valley Water Conservation District  
Mike Huffstutler, City of Redlands  
Ross Lewis, Gage Canal Company  
Kevin Mayer, US EPA (Region IX)  
Steve Mains, Western Municipal Water District  
Morris Matson, Loma Linda University  
Eugene McMeans, Riverside Highland Water Company  
Zahra Panahi, City of Riverside  
Dan Randall, City of Riverside  
Bob Reiter, San Bernardino Valley Municipal Water District  
Toby Roy, Department of Health Services (San Diego)  
Alain Sharp, Earth Technology Corporation  
Greg Snyder, City of Loma Linda  
Joseph Stejskal, City of San Bernardino  
Dieter Wirtzfeld, City of Riverside



# HSI GEOTRANS

A TETRA TECH COMPANY

3150 Bristol Street  
Suite 500  
Costa Mesa, California  
92626

714-513-1415 FAX 714-513-1278

November 12, 1999

Lockheed Martin Corporation  
West Coast Project Office  
2550 N. Hollywood Way, 3<sup>rd</sup> Floor  
Burbank, California 91505

Attention: Mr. John Hemmans  
Project Coordinator

Subject: September 1999 Data Report  
Water Supply Contingency Plan  
Production Well Sampling Program  
Crafton-Redlands Plume Project

Dear Mr. Hemmans:

This report presents a summary of results of the Water Supply Contingency Plan production well sampling for the month of September 1999. The Water Supply Contingency Plan (WSCP) was prepared by Lockheed Martin Corporation and submitted to the State of California Regional Water Quality Control Board (RWQCB) Santa Ana Region on September 30, 1996. The plan was conditionally approved by the RWQCB in a letter dated March 6, 1997. The WSCP for the Crafton-Redlands Plume was prepared to address maintenance of water supply to purveyors in the event that wells became impacted with trichloroethene (TCE) from the Crafton-Redlands TCE Plume. A summary of key dates and WSCP sampling program evolution is provided on Table 1.

The locations of the WSCP wells and analytical results for the September 1999 sampling event for TCE and perchlorate are shown on Figures 1 and 2, respectively. Table 2 presents a summary of analytical tests performed on each WSCP well and water system sampling point. The sampling frequency of each well is once a month for the first year. More frequent sampling, if required, is based on the analytical results as outlined in the WSCP TCE and perchlorate decision matrices, provided as Figures 3 and 4, respectively. The perchlorate decision matrix was presented in the *Perchlorate Work Plan and Schedule*, which was submitted, to the RWQCB on August 15, 1997. The RWQCB approved the Perchlorate Work

Plan on October 31, 1997. Table 3 presents a summary of the wells sampled twice monthly according to the decision matrices.

## **RESULTS**

A summary of the analytical results for the September 1999 WSCP sampling event for TCE and perchlorate is shown on Figures 1 and 2, respectively, and presented on Table 4. Available groundwater elevation data is provided on Table 5. The water sampling field forms are provided in Attachment A. Chain-of-custody, laboratory data sheets, and Level III Modified laboratory quality assurance/quality control (QA/QC) documentation is provided in Attachment B.

### ***Trichloroethene***

Four groundwater samples collected in September met or exceeded 2/5<sup>th</sup> the MCL for TCE (2.0 µg/L) including; Gage 26-1 (10 µg/L), Gage 27-1 (6.2 µg/L), Gage 29-2 (4.2 µg/L), and Gage 29-3 (6.4 µg/L). Gage 26-1 and Gage 27-1 were placed into TCE treatment in May 1999, therefore they will be sampled once a month. The TCE impacts at Gage 29-2 and Gage 29-3 are partially attributed to the Norton AFB plume, and partially attributed to the Crafton Redlands plume, thus beginning in October 1999, Gage 29-2 and Gage 29-3 will be sampled twice a month for TCE.

### ***Perchlorate***

In the September WSCP sampling, perchlorate was detected at or above 75 percent (13.5 µg/L) of the PAL in four City of Riverside wells (Gage 29-2, Gage 29-3, Gage 51-1, and Gage 92-1). Gage 29-2, Gage 29-3, and Gage 51-1 are currently being sampled on a twice a month basis.

The September 2, 1999 sample from Gage 92-1 had a perchlorate concentration that exceeded 75 percent of the PAL. In accordance to the perchlorate decision matrix (Figure 3), a confirmation sample was collected on September 15, 1999. The confirmation sampling results did not exceed 75 percent of the perchlorate PAL for Gage 92-1 thus, twice monthly sampling will not be implemented.

### ***Perchlorate: Twice-Monthly Sampling Evaluation***

As of September 1999, five wells are sampled on a twice a month basis, if active (Gage 29-2, Gage 29-3, Gage 51-1, COLL Richardson #1 and COLL Mountain View #2). The three-month twice-monthly sampling cycle concluded on September 30, 1999. For the past three months (July 1 through September 30, 1999), the average perchlorate concentrations for the wells sampled on a twice-monthly basis are presented on Table 6.

Five samples were collected from Gage 29-2 during the July 1 through September 30, 1999 sampling cycle because the well was off-line part of the time. The average perchlorate concentration for the five samples collected from Gage 29-2 is 25.2 µg/L (Table 6). This exceeds 75 percent of the perchlorate PAL, thus, Gage 29-2 will continue to be sampled on a twice-monthly basis, if active.

A total of five samples were collected from Gage 29-3 during the July 1 through September 30, 1999 three-month sampling cycle because the well was off-line part of the time. The average perchlorate concentration for the five samples collected from Gage 29-3 was 44.8 µg/L (Table 6) thus, Gage 29-3 will continue to be sampled on a twice-monthly basis, if active.

Six samples were collected from Gage 51-1 during the July 1 through September 30, 1999 three-month sampling cycle. The average perchlorate concentration for the collected samples was 15.4 µg/L (Table 6) thus, Gage 51-1 will continue to be sampled on a twice-monthly basis, if active.

A total of six samples were collected from the COLL Richardson #1 between July 1, 1999 and September 30, 1999. All six samples analyzed for perchlorate during the three month sampling cycle were below the method detection limits for perchlorate. Thus, this well will be sampled once a month for perchlorate. The previous perchlorate detections observed in this well were a result of cross flow between the adjacent Richardson #2 well when it was off-line.

A total of six samples were collected from the COLL Mountain View #2 between July 1 and September 30, 1999. The average perchlorate concentration for the six samples analyzed from COLL Mountain View #2 is 8.4 µg/L (Table 6). During the past three-month sampling cycle the average perchlorate concentration in Mountain View #2 was below 13.5 (75 percent of the PAL). In accordance with the WSCP decision matrix for perchlorate, Mountain View #2 should be sampled once a month, however, Lockheed Martin will continue to sample Mountain View #2 on a twice monthly schedule in accordance to the DHS-approved perchlorate blending plan for continued use of this well.

Based on the decision matrices for TCE and perchlorate, the COLL Richardson #1 well was removed from the twice-monthly sampling program for perchlorate. Twice-monthly sampling for TCE will commence in October 1999 for Gage 29-2 and Gage 29-3. At the conclusion of the next three month sampling cycle (December 31, 1999), the perchlorate concentrations in Gage 29-2, Gage 29-3, Gage 51-1, COLL Mountain View #2 and the TCE concentrations in Gage 29-2 and Gage 29-3 will be evaluated to determine the future sampling frequency.

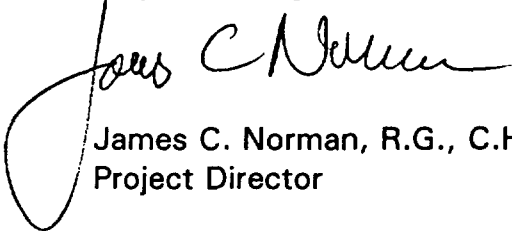
**CLOSING**

HSI GeoTrans greatly appreciates being of continued service to Lockheed Martin Corporation on this project. Should you have any questions or comments, please do not hesitate to call.

Sincerely,  
**HSI GEOTRANS**



Roy J. Marroquin  
Project Manager



James C. Norman, R.G., C.HG.  
Project Director

## TABLES

**TABLE 1****KEY PROJECT DATES AND WSCP SAMPLING PROGRAM EVOLUTION**

August 2, 1996, the RWQCB – Santa Ana Region requested Lockheed Martin to submit a conceptual Water Supply Contingency Plan.
September 30, 1996, Lockheed Martin submitted the Water Supply Contingency Plan (WSCP) to the RWQCB – Santa Ana Region.
March 6, 1997, the RWQCB conditionally approved the WSCP, which included sampling eight production wells (City of Loma Linda Richardson #1, Richardson #2, Mountain View #1, Mountain View #2, Victoria Farms Mutual Water Company Wells #1 and #3, and Southern California Edison #1 and #2).
June 1997, Victoria Farms Mutual Water Company was connected to City of San Bernardino Water. Pumping ceased at VFMWC #1 and #3, and the two wells were removed from the program.
June 1997, sampling of SCE #1 was discontinued because it is not operated on a regular basis. The WSCP consists of five wells, including COLL Mountain View #1 and #2, COLL Richardson #1 and #2, and SCE #2 (AUX).
August 1997, the WSCP was expanded due to the detection of perchlorate in municipal supply wells in the Bunker Hill Basin. Twenty-six wells were added to the WSCP including nineteen City of Riverside wells, five City of Redlands wells, and two Loma Linda University wells, for a total of 31 wells.
October 1997, three City of Riverside water system sampling points were added to the WSCP, including the Gage system pipeline (Gage Delivery), the Waterman system pipeline (Iowa Booster), and the sampling station measuring outflow from the Linden and Evans Reservoirs (7 <sup>th</sup> & Chicago).
March 1998, two City of Loma Linda water system sampling points were added to the WSCP, including the Mountain View system pipeline (Mountain View Blend at Lawton) and the Richardson system pipeline (Richardson Blend).
June 1998, one City of Riverside irrigation water system sampling point (Gage Arlington) and one additional City of Loma Linda water system sampling point (Mountain View Blend at Timoteo) were added to the WSCP.
December 1998, the new COLL Richardson #3 well was added to WSCP Sampling Program.
May 1999, Sampling of Mountain View Blend at Timoteo was discontinued because it does not represent a blend sample of the Mountain View pipeline system.



TABLE 2

## WSCP PRODUCTION WELL SAMPLING PROGRAM

HSI#	Well Name	Perchlorate	TCE
<b>City of Loma Linda</b>			
692	Mountain View #2	X	X
693	Richardson #1	X	X
694	Richardson #2	X	X
707	Richardson #3	X	X
<b>City of Loma Linda Water System Sampling Points</b>			
2967	Mountain View Blend - Lawton	X	X
2968	Richardson Blend	X	X
<b>Mountain View Power (Formerly Southern California Edison)</b>			
554	SCE#2(AUX)	X	X
<b>Loma Linda University</b>			
267	LLUniv Anderson #2	X	
717	LLUniv Anderson #3	X	
<b>City of Riverside (Gage System)</b>			
252	Gage#26-1	X	X
258	Gage#27-1	X	X
259	Gage#27-2	X	X
260	Gage#29-1	X	X
219	Gage#29-2	X	X
220	Gage#29-3	X	X
218	Gage#30-1	X	X
214	Gage#31-1	X	X
215	Gage#46-1	X	X
253	Gage#51-1	X	X
216	Gage#56-1	X	X
257	Gage#66-1	X	X
644	Gage#92-1	X	X
641	Gage#92-2	X	X
642	Gage#92-3	X	X
<b>City of Riverside (Waterman System)</b>			
273	Hunt#6	X	
271	Hunt#10	X	
272	Hunt#11	X	
<b>City of Riverside Water System Sampling Points</b>			
2946	Iowa Booster (Waterman)	X	X
2947	Gage Delivery (Gage)	X	X
2948	7th & Chicago (Reservoir)	X	X
3018	Gage Arlington	X	
<b>City of Redlands</b>			
542	COR Church St <sup>a</sup>	X	
2673	COR#38 <sup>a</sup>	X	
535	COR Mentone Acres <sup>a</sup>	X	
29	COR Orange St <sup>a</sup>	X	
74	CORRees <sup>a</sup>	X	X

## Notes:

TCE = Trichloroethene

Perchlorate analyzed using DHS Method (EPA 300.0 Modified)

TCE analyzed using EPA Method 502.2

TABLE 3

**WSCP PRODUCTION WELL SAMPLING PROGRAM  
SEPTEMBER 1999 WELLS SAMPLED TWICE MONTHLY**

HSI#	Well Name	Perchlorate	TCE
<b>City of Loma Linda</b>			
692	Mountain View #2	X	
693	Richardson #1	X	
<b>City of Riverside (Gage System)</b>			
219	Gage #29-2	X	
220	Gage #29-3	X	
253	Gage #51-1	X	

Notes:

TCE = Trichloroethene

Perchlorate analyzed using DHS Method (EPA 300.0 Modified).

TCE analyzed using EPA Method 502.2.

**TABLE 4**  
**WSCP PRODUCTION WELL SAMPLING PROGRAM**  
**SEPTEMBER 1999 DATA RESULTS**

HSI#	Well Name	Sample Date	Perchlorate (µg/L) Del Mar	TCE (µg/L) Del Mar
<b>City of Loma Linda</b>				
692	Mountain View #2	9/1/99	7.3	0.54
692	MUN-753	9/1/99	7.2	0.57
692	Mountain View #2*	9/15/99	9.1	NA
693	Richardson #1	9/1/99	ND(4)	ND(0.5)
693	Richardson #1*	9/15/99	ND(4)	NA
694	Richardson #2	9/1/99	7.4	0.57
707	Richardson #3	9/1/99	ND(4)	ND(0.5)
<b>City of Loma Linda Water System Sampling Points</b>				
2967	Mountain View Blend-Lawton	9/1/99	6.5	ND(0.5)
2968	Richardson Blend	9/1/99	ND(4)	ND(0.5)
<b>Mountain View Power (Formerly Southern California Edison)</b>				
554	SCE#2(AUX)	9/1/99	ND(4)	ND(0.5)
<b>Loma Linda University</b>				
267	LLUniv Anderson #2	9/2/99	ND(4)	NA
717	LLUniv Anderson #3	9/2/99	ND(4)	NA
<b>City of Riverside (Gage System)</b>				
252	Gage#26-1 <sup>b</sup>	9/2/99	10	10
258	Gage#27-1 <sup>b</sup>	9/2/99	7.4	6.2
259	Gage#27-2	9/2/99	7.9	1.3
260	Gage#29-1	9/2/99	8.0	0.50
219	Gage#29-2	9/2/99	21	4.2
219	Gage 29-2*	NS	NS	NA
220	Gage#29-3	9/2/99	39	6.4
220	MUN-754	9/2/99	38	6.5
220	Gage#29-3*	NS	NS	NA
218	Gage#30-1	9/1/99	ND(4)	ND(0.5)
214	Gage#31-1	9/15/99	ND(4)	ND(0.5)
215	Gage#46-1	9/2/99	ND(4)	ND(0.5)
253	Gage#51-1	9/2/99	15	ND(0.5)
253	Gage#51-1*	9/15/99	14	NA
216	Gage#56-1	9/2/99	ND(4)	ND(0.5)
257	Gage#66-1	9/2/99	11	ND(0.5)
644	Gage#92-1	9/2/99	14	1.1
644	Gage#92-1**	9/15/99	11	NA
644	MUN-755	9/15/99	12	NA
641	Gage#92-2	9/1/99	ND(4)	ND(0.5)
642	Gage#92-3	9/1/99	ND(4)	ND(0.5)
<b>City of Riverside (Waterman System)</b>				
273	Hunt#6	NS	NS	NA
271	Hunt#10	NS	NS	NA
272	Hunt#11	NS	NS	NA
<b>City of Riverside Water System Sampling Points</b>				
2946	Iowa Booster (Waterman)	9/2/99	ND(4)	ND(0.5)
2947	Gage Delivery (Gage)	9/2/99	9.3	1.1
2948	7th & Chicago (Reservoir)	9/2/99	6.7	0.72
3018	Gage Arlington	9/2/99	ND(4)	NA
<b>City of Redlands</b>				
542	COR Church St <sup>a</sup>	NS	NS	NA
2673	COR#38 <sup>a</sup>	NS	NS	NA
535	COR Mentone Acres <sup>a</sup>	NS	NS	NA
29	COR Orange St <sup>a</sup>	NS	NS	NA
74	COR Rees	9/1/99	ND(4)	ND(0.5)

**Notes:**

\* = Twice-monthly sampling result  
 \*\* = Confirmation sampling results  
 \* = Well sampled on quarterly basis, if active  
 ND(4) = Not detected at the specified limit  
 MUN = Duplicate sample collected from the well listed directly above  
 NA = Not Analyzed  
 NS = Not Sampled

TCE = Trichloroethene  
 Perchlorate analyzed using DHS Method (EPA 300.0 Modified)  
 TCE analyzed using EPA Method 502.2  
 b = Gage 26-1 and Gage 27-1 are currently being treated for TCE

TABLE 5

**SUMMARY OF WATER LEVEL MEASUREMENTS  
SEPTEMBER 1999 SAMPLING EVENT**

HSI#	Well Name	Measure Date	Depth to Water	Measuring Point Elevation	Groundwater Elevation	Comments
<b>City of Loma Linda</b>						
692	Mountain View #2	09/11/99	182	1085	903	Static
693	Richardson #1	09/11/99	188	1077	889	Pumping
694	Richardson #2	09/11/99	193	1078	885	Pumping
707	Richardson #3	09/11/99	179	1085	906	Static
<b>Mountain View Power (formerly Southern California Edison)</b>						
554	SCE#2(AUX)	NM	NM	1100.00	NM	Pumping
<b>Loma Linda University</b>						
267	LLUniv Anderson #2	NM	NM	1075	NM	Pumping
717	LLUniv Anderson #3	NM	NM	1070	NM	Pumping
<b>City of Riverside (Gage System)</b>						
252	Gage#26-1	09/07/99	101.50	1045.33	943.83	Pumping
258	Gage#27-1	09/07/99	97.10	1044.64	947.54	Pumping
259	Gage#27-2	09/07/99	99.80	1044.64	944.84	Pumping
260	Gage#29-1	09/07/99	106.20	1044.43	938.23	Pumping
219	Gage#29-2	09/07/99	NM	1046.31	NM	Static
220	Gage#29-3	09/07/99	NM	1048.75	NM	Static
218	Gage#30-1	09/07/99	197.80	1054.17	856.37	Pumping
214	Gage#31-1	09/07/99	77.40	1054.64	977.24	Static
215	Gage#46-1	09/07/99	171.00	1065.50	894.50	Pumping
253	Gage#51-1	09/07/99	192.20	1044.64	852.44	Pumping
216	Gage#56-1	09/07/99	193.40	1065.50	872.10	Pumping
257	Gage#66-1	09/07/99	149.20	1044.85	895.65	Pumping
644	Gage#92-1	09/07/99	176.80	1047.78	870.98	Pumping
641	Gage#92-2	09/07/99	196.60	1053.38	856.78	Pumping
642	Gage#92-3	09/07/99	191.20	1058.78	867.58	Pumping
<b>City of Riverside (Waterman System)</b>						
273	Hunt#6	NM	NM	1015.5	NM	Pumping
271	Hunt#10	NM	NM	1017	NM	Pumping
272	Hunt#11	NM	NM	1015.7	NM	Pumping
<b>City of Redlands</b>						
542	COR Church St	Sep-99	182.0	1344.8	1162.8	Pumping
2673	COR#38	Sep-99	100.0	NA	NA	Pumping
535	COR Mentone Acres	Sep-99	199.0	1506.4	1307.4	Pumping
29	COR Orange st	Sep-99	141.0	1282	1141.0	Pumping
74	COR Rees	Sep-99	224.0	1490	1266.0	Pumping

**Notes:**

All measurements reported in feet below measuring point (ft-bmp)

Water level measurements for all City of Loma Linda, City of Riverside, and City of Redlands wells were obtained by purveyor personnel.

Elevations given in feet above mean sea level (ft-msl)

NM=Not measured

NA=Data not available

Static water levels were allowed to recover a minimum of 30 minutes to obtain a static water level measurement

TABLE 6

**TWICE MONTHLY SAMPLING PROGRAM  
THREE MONTH DATA AND AVERAGE  
PERCHLORATE CONCENTRATIONS**

Well Name	Sample Date	Sample Result	75% of PAL	PAL
Gage29-2	7/7/99	26	13.5	18
Gage29-2	7/15/99	22	13.5	18
Gage29-2	8/3/99	35	13.5	18
Gage29-2	8/13/99	22	13.5	18
Gage29-2	9/2/99	21	13.5	18
<b>Average 7/1/99 - 9/30/99*</b>		<b>25.2</b>		
Gage29-3	7/7/99	43	13.5	18
Gage29-3	7/15/99	39	13.5	18
Gage29-3	8/3/99	62	13.5	18
Gage29-3	8/20/99	41	13.5	18
Gage29-3	9/2/99	39	13.5	18
<b>Average 7/1/99 - 9/30/99*</b>		<b>44.8</b>		
Gage 51-1	7/6/99	14	13.5	18
Gage 51-1	7/15/99	13	13.5	18
Gage 51-1	8/3/99	21	13.5	18
Gage 51-1	8/13/99	14	13.5	18
Gage 51-1	9/2/99	15	13.5	18
Gage 51-1	9/15/99	14	13.5	18
<b>Average 7/1/99 - 9/30/99</b>		<b>15.4</b>		
COLL Richardson #1	7/6/99	ND(4)	13.5	18
COLL Richardson #1	7/15/99	ND(4)	13.5	18
COLL Richardson #1	8/2/99	ND(4)	13.5	18
COLL Richardson #1	8/13/99	ND(4)	13.5	18
COLL Richardson #1	9/1/99	ND(4)	13.5	18
COLL Richardson #1	9/15/99	ND(4)	13.5	18
<b>Average 7/1/99 - 9/30/99</b>		<b>ND(4)</b>		
COLL Mountain View #2	7/6/99	12	13.5	18
COLL Mountain View #2	7/15/99	6.4	13.5	18
COLL Mountain View #2	8/2/99	7.6	13.5	18
COLL Mountain View #2	8/13/99	7.8	13.5	18
COLL Mountain View #2	9/1/99	7.3	13.5	18
COLL Mountain View #2	9/15/99	9.1	13.5	18
<b>Average 7/1/99 - 9/30/99</b>		<b>8.4</b>		

**Notes:**

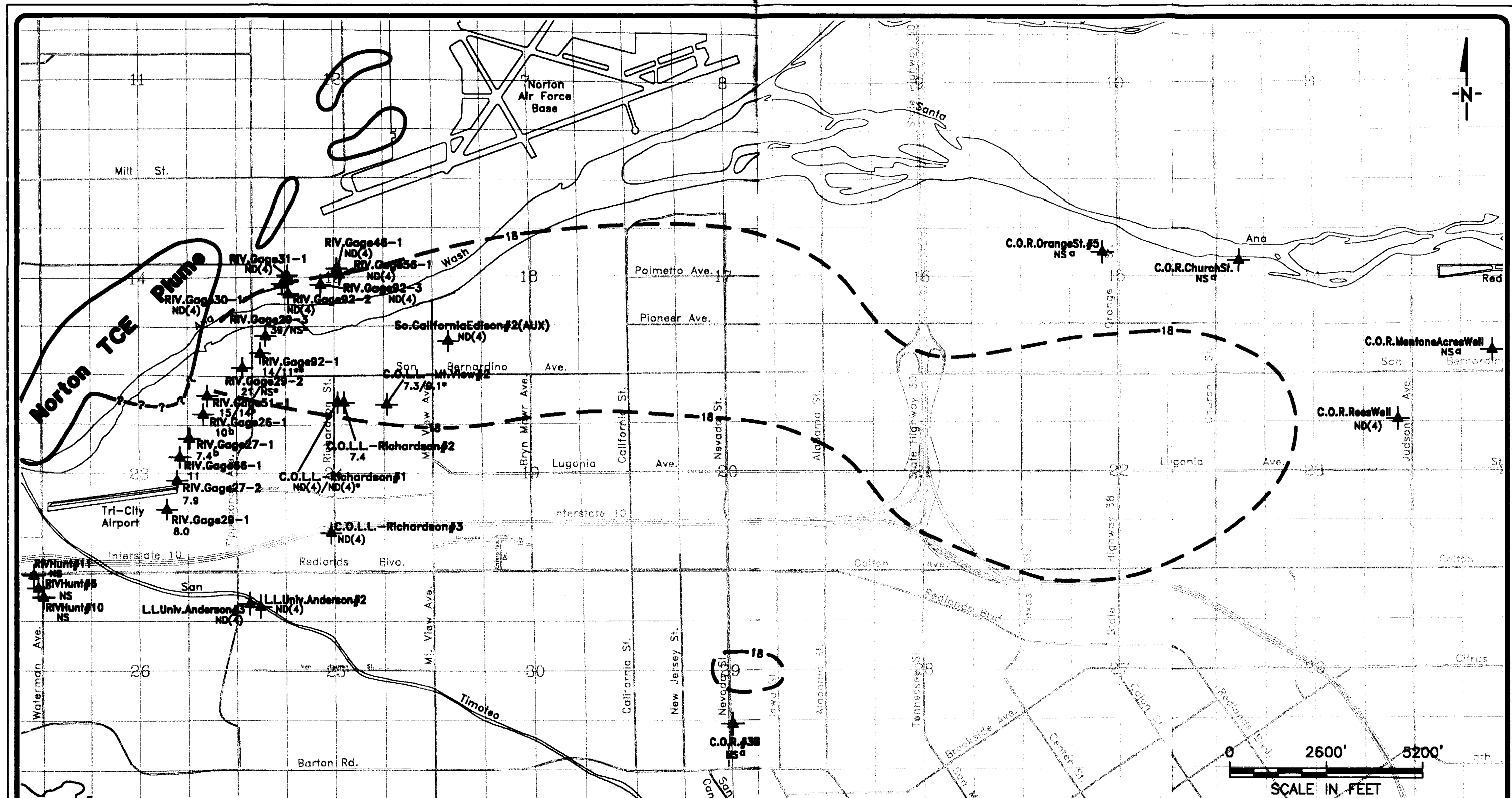
\* Well sometimes off-line between 7/1/99 - 9/30/99

All concentrations are micrograms per liter.

PAL = Provisional Action Level for perchlorate

## FIGURES





# EXPLANATION

- Wells Currently Sampled Under the Existing WSCP Sampling Program
- Approximate 18 µg/L Perchlorate Plume Location (1998 Interpretation)
- Approximate TCE Plume Location 5 µg/L (Earth Tech June 1999 Interpretation of Norton AFB Plume)

- 9.2 Perchlorate (µg/L) Results
- ND(4) Not Detected at Indicated Detection Limit
- NS Not Sampled
- a Quarterly Sampling Results
- b Gage 26-1 and Gage 27-1 are Currently Being Treated for TCE
- \* Twice-Monthly Sampling Results

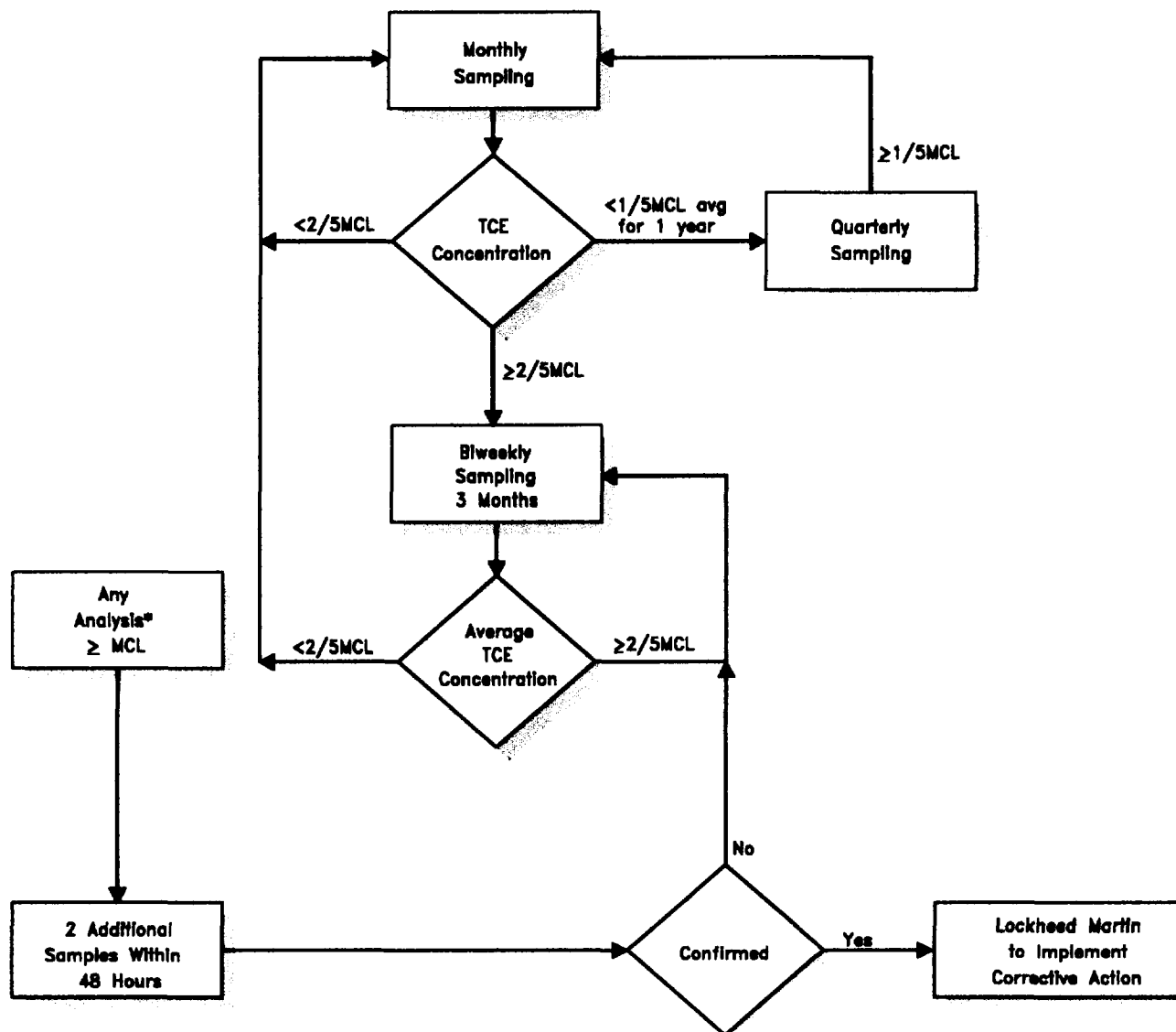
- \*\* Confirmation Sampling Results
- 6.5 C.O.L.L. Mountain View Blend - Lawton
- ND(4) C.O.L.L. Richardson Blend
- ND(4) Riv. Iowa Booster (Waterman)
- 9.3 Riv. Gage Delivery (Gage)
- 6.7 Riv. 7th + Chicago (Reservoir)
- ND(4) Gage Arlington

TITLE: WSCP Production Well Sampling Program  
Perchlorate Data Results September 1999

LOCATION: LOCKHEED MARTIN  
REDLANDS, CALIFORNIA

	CHECKED: Roy Marroquin	FIGURE: <b>2</b>
	DRAFTED: Hector Magaña	
	PROJ.: C541-101	
DATE: 09/22/99		





**Footnote:**

\* If, at a specific well, blending is occurring to provide acceptable water for compounds other than TCE, then no corrective action may be necessary as long as the concentration of TCE is less than 5.0 µg/L in the finished water.

TCE MCL = 5 µg/L (California Regulations, Title 22, Division 4, Chapter 15, Section 64444)

TITLE: Decision Matrix for Sampling of Production Wells for TCE from the Crafton-Redlands Plume

LOCATION: LOCKHEED MARTIN  
REDLANDS, CALIFORNIA

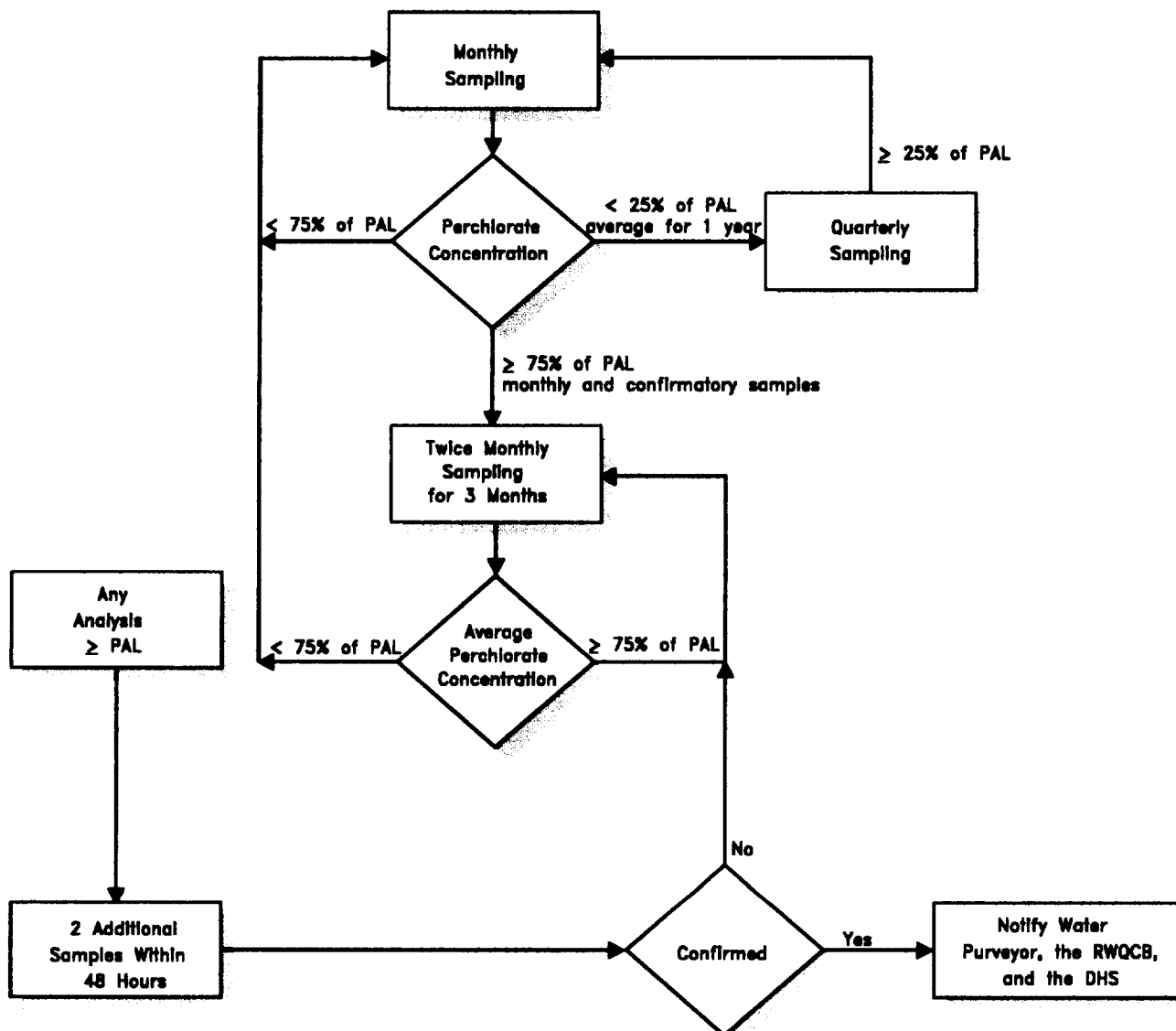


**HSI  
GEOTRANS**  
A TETRA TECH COMPANY

CHECKED:	Ron Bruns
DRAFTED:	Hector Magaña
PROJ.:	N948-101
DATE:	09/25/98


FIGURE:

3



**Footnote:**

Perchlorate Provisional Action Level (PAL) = 18 µg/L (California Department of Health Services, May 1997)

TITLE:		Decision Matrix for Sampling Production Wells for Perchlorate	
LOCATION:		LOCKHEED MARTIN REDLANDS, CALIFORNIA	
 <b>HSI GEOTRANS</b> A TETRA TECH COMPANY	CHECKED:	Ron Bruns	FIGURE:  <b>4</b>
	DRAFTED:	Hector Magaña	
	PROJ.:	C948-101	
	DATE:	09/25/98	

**ATTACHMENT A**  
**GEOLIS FIELD FORMS**

**ATTACHMENT A**

**GEOLIS FIELD FORMS**  
**(Available Upon Request)**

**ATTACHMENT B**

**CHAIN-OF-CUSTODY RECORDS AND  
LABORATORY DATA SHEETS  
QUALITY ASSURANCE/QUALITY CONTROL DOCUMENTATION**

**ATTACHMENT B**

**CHAIN-OF-CUSTODY RECORDS AND  
LABORATORY DATA SHEETS AND LEVEL III MODIFIED  
QUALITY ASSURANCE/QUALITY CONTROL DOCUMENTATION  
(Available Upon Request)**